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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
KUMAR, RAKESH	

ART UNIT	PAPER NUMBER
3654	

DATE MAILED: 08/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/796,349	GRAEF ET AL.	
	Examiner	Art Unit	
	Rakesh Kumar	3654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-20 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-12, 14-16 and 18-20 is/are rejected.

7)☒ Claim(s) 13 and 17 is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 09 March 2004 is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 07/23/2005.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show how in detail the connection and the described interaction of the leaf spring 243 engages the clip portion 241 of member 250 as is disclosed in the specifications (page 32 line 1-10) and in turn the interaction with the stripping member 246. Further it is also unclear as to how the spring portion 245 acts on shaft 254 and the carry away roll 252 to engage the middle disk portion of 218. It would be helpful if a large detail drawing of the assembly including the leaf springs, shaft 248, 254 and the guide members in between the two shafts linking to the disk portion 218 are provided so that the part movements can be anticipated as described in the specs.

2. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining

figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. On page 32 of the specifications line 2 it is stated "Leaf spring portion 243 biases shaft 245". Member 245 corresponds to a second leaf spring. It is believed to be a typographical error and is construed to mean "Leaf spring portion 243 biases shaft 248". Appropriate action is required for the correction.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 1 and 4 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Referring to claim 1. In the claim it is unclear as to what is meant by the "releasing force" that is holding the stripping member adjacent to the picking member. It is construed to mean that when the leaf spring is deformed, the leaf spring "applies a force" to the stripping member to release it from its initial state.

7. Referring to claim 4. The claim indicates a resilient tab releasing a force holding a picking member in engagement with a "drive shaft". It is unclear as to how the tab portion 270 interacts with the picking member 218 in order to release the force holding the picking member in engagement with the drive shaft. Furthermore, it is unclear if the picking member (roller 218) itself disengages from the driveshaft or the driveshaft disengages from the housing 268 with the picking members still intact. The interaction is not shown in drawing Figure 18 or elsewhere. It is generally understood and broadly construed to mean that the picking member 218 with the driveshaft intact is disengaged from the housing 268 by a movable portion 270.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claim 16 rejected under 35 U.S.C. 102(b) as being anticipated by Furuki et al. (U.S. Patent Number 6,000,689).

10. Referring to claim 16. Furuki et al. discloses a method of deforming a spring 11 integrally formed on the housing that urges a stripping member 4 to be positioned in contact with a picking member 3. The method discloses the stripping member 4 positioned in an axis along the picking member axis and is moved away when feeding of the media sheet is complete.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. Claim 1-3, 9, 14,15, 10 and 20 rejected under 35 U.S.C. 103(a) as being unpatentable over Furuki et al. (U.S. Patent Number 6,000,689).

13. Referring to claim 1. Furuki et al. describes a method for automatic paper feeding. Furuki et al. teaches of a spring 11 attached at one end to the housing of the feeder and another end attached to a lever assembly, which in turn pivotly mounts a rotatable stripping member 4 adjacent to a sheet picking member 3.

Furuki et al. discloses a spring 11 deforming, as it deforms it "urges" the stripping memebr 4 to engage or disengage pressure contact with picking member 3 by the appropriate motion of spring 11 and the corresponding lever assembly (Col 7 line 15-26, Col 8 line 7-17). As seen in Figure 3 and 4 the stripping member 4 can be moved close to or away from the picking member 3 when the required function of the embodiment is complete.

Furuki et al. doesn't teach of using a leaf spring integrated into the housing to generate the prescribed motion. Also, Furuki et al. does not explicitly mention the process to disengage the stripping member 4 from the picking member 3.

It would have been obvious to one skilled in the art at the time of the invention to alter the initial starting point so that the point of concern is after the stripping member 4 makes contact with the picking member 3. It is disclosed that the stripping member 4 engages and disengages the picking member 3, from this it is seen and understood that the steps and method used to engage the picking member can be reversed depending of the initial state of the stripping member 4. As a result, the stripping member 4 is in contact with picking member 3, a spring 11 is deformed, and the stripping member 4 is moved away from the picking member 3. Also an alternative form of a spring 11 can be used to generate the urging means required to disengage the striping member 4 from the picking member 3. A leaf spring can be used instead of the spring 11 as described by Furuki et al. because the parts and the interconnection between the parts can be minimized making the system more robust.

14. Referring to claim 9 and 10. With respect to claim 9 and 10 it would further have been obvious to disengage a spring mechanism 11 completely from the shaft-supporting lever 11 once the striping member 246 is disengaged from the picking member 218. Therefore, the spring mechanism 11 will not be in a continuous tension mode and thus will not loose its rigidity and maintain its contacting strength when it is cycled through the engagement and disengagement process with the picking member.

15. Referring to claim 14 and 15. With respect to claim 14 and 15, Furuki et al. discloses a method of receiving a signal input through a rotation amount setting means 37, which forwards a signal to a control unit 31. The control unit 31 through the means of a step motors 30, 36 rotates the picking member 3 while engaged to media tray 2 and advancing a single sheet media 1 through the assembly in the downstream direction (see Figure 30 Col 7 line 60-64).

Furuki et al. does not disclose the input being derived in particular from a user.

It would have been obvious to one skilled in the art at the time of the invention was made to modify the input signal as a signal that is activated by the user or by a sensor that detects the presence of the user. Thus the embodiment is only active when it is use and as a result will reduce the wear on the assembly parts.

16. Referring to claim 2, 3 and 20. See claims 1 and 16. Furuki et al. discloses in Figure 9, a second spring 23 integrated on lever assembly 7 mounted to the housing with the ability to move the carry away member 22 to engage and disengage the picking member 3 (Col 10 line 12-23).

Furuki et al. does not indicate the initial state of the carry away member is engaged and the use of a leaf spring in not disclosed.

It would have been obvious to one skilled in the art at the time of the invention was made to modify the initial point of reference to be the point when the carry away member 22 along with lever assembly 7 and the picking member 3 are in contact with each other. The carry away member 22, by urging means is moved away from the picking member 3 by the deforming of the second spring member 23. In addition, it would be obvious to replace a leaf spring which functions much the same as a standard coiled spring with spring 23 as described by Furuki et al. because the parts and the interconnection between the parts can be minimized making the system more robust.

17. Claim 4-7, 11, 12, 18 and 19 rejected under 35 U.S.C. 103(a) as being unpatentable over Furuki et al. as applied to claims 1 and 16 above, and further in view of Westcott et al. (U.S. Patent Number 5,921,539).

18. Referring to claim 4-6, 11, 12, 18 and 19. See above. Furuki et al. discloses a method for systematically disengaging a stripping member 4 and disengaging a carry away member 22 from the picking member 3. Furuki et al.

does not disclose a method to disengage members from the housing of the automatic feeder.

Westcott et al. discloses a method to disengage the picking member 46 of the feed module 14 by first compressing a compression portion 82 of a movable resilient support member 78 outwards relative to an axis of rotation and is integrally attached to the housing by members 36, 38 and thus releasing the force holding the picking member in engagement with the drive shaft 78 (See Figure 4, Col 5 lines 14-24). As the movable resilient support member 78 is compressed the drive coupler 88 of member 74 is disengaged from one side, the assembly 14 is bent outwards from the axis 98 and then is disengaged from the opposite side from contact with the resilient support member 78, thus freeing the assembly from the housing (Figure 6, Col 5 line 25). The self centering drive coupling gear 72 contains projection that interconnect to provide a locking mechanism for the picking shaft and the drive shaft.

It would be obvious to one skilled in the art at the time of the invention to combine the steps disclosed by Furuki et al. and Westcott et al. to generate a movable media loading assembly which in addition can be disengaged from the housing and the drive shaft in order to perform routine maintenance repair, replacement and cleaning of the interior members.

19. Referring to claim 7. Regarding claim 7, Westcott et al. disclose a method of separating an outermost sheet of media 4 by the means of a picking member 46 and a stripping member 100 from a stack of media 6. Westcott et al.

also discloses that only outermost sheet 4 is removed without the movement of the remainder of the stack.

It would be obvious to one skilled in the art at the time of the invention to combine the teaching of Furuki et al. and Westcott et al. to be able to use a stack of notes instead of just media sheets, thus to being able to dispense notes through using a pickup member and a stripping member.

20. Claim 8 rejected under 35 U.S.C. 103(a) as being unpatentable over Furuki et al. in view of Westcott et al. and further in view of Geib et al. (U.S. Patent Number 5,207,788).

21. Referring to claim 8. Furuki et al. and Westcott et al. both disclose a method of utilizing a picking member to separate a media sheet from a stack as is discussed above. Furuki et al. also discloses protection for damaging media edges as the media makes contact with the separation roller. Furuki et al. and Westcott et al. do not teach a method to using a central high friction arcuate portion on the surface of the picking member to remove media.

Geibet et al. discloses a method of using a drum roller member 12 with a high friction-bearing surface 13 on at least part of the surface of the roller. In Figure 3, a high friction-bearing surface is shown containing a arcuate portion to increase the friction between the roller and the notes.

I would have been obvious to one skilled in the art at the time of the invention to combine the teaching of Furuki et al., Westcott et al. and Geibet et

al. to the utilize a high friction-bearing arcuate surface on the primary pickup member to further reduce the edge damage incurred by the media when the pickup roller first urges the media to the striping member.

Allowable Subject Matter

22. Referring to claim 13, 17. Claims 13 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

23. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rakesh Kumar whose telephone number is (517) 272-8314. The examiner can normally be reached on 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathy Matecki can be reached on (571) 272-6951. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

25. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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